

Claims

[c1] What is claimed is:

A viewing tube for use as an endoscope or stroboscope that includes an LED illumination source comprising:

a straight, elongated, rigid hollow outer tube;

a coaxial smaller inner tube;

one or more optical lenses disposed within said inner tube forming an optical path allowing human observation from a proximal end of said tube to a distal end of said tube;

an eyepiece for human observation mounted at the proximal end of said tube;

an LED light housing including an LED light source mounted within said LED light housing;

a mounting block for mounting said LED light housing substantially perpendicular to said elongated rigid tube;

a fiber optic bundle having a first end abutting said LED light source to receive light for transmission there through, said fiber optic bundle having a portion connected and surrounding said inner tube and said lens optical path within said inner tube, said fiber optic bundle having a second light emanating end mounted at the distal end of said tube for an illumination pattern ema-

nating from the distal end of said tube; and
a power source connected to said LED for providing electrical power for illuminating said LED.